Data Services User Manual

Getting Started & Getting the Most From the *good***net** Data (Internet) Service

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Prepared by: ForeVision Systems

Contents

Section		Page
1.0	Introduction to *good***net**	3
2.0	The *good***net** Data Service	4
3.0	Connecting to the Data Service in Rooms – Checking Your Computer – Cables – Plugging In – Windows XP Settings – Windows 98 Settings – Mac OS/X Settings	7
4.0	Connecting to the Wireless Service in Common Areas – Windows XP Settings – Windows 98 Settings – Mac OS/X Settings	13
5.0	Protecting Your Computer	15
6.0	Supported Applications – Internet Access – Email – Instant Messenger – Network Storage	16
7.0	FAQs	18

Appendices

A	*good***net** Acceptable Use Policy	20

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1.0 Introduction to *good*net

ITC Services for Members at Goodenough College

Launched in April 2005, *good***net** is a new service providing Information Technology & Communications (ITC) to members studying at Goodenough College in London. *good***net** currently offers four key services:

- an Ethernet data/Internet service in all member rooms
- a Wireless data/Internet service in all common areas
- pre-paid calling cards and online account for making low cost telephone calls
- a PC-TV service delivering around 60 UK and international channels.

How Much Does It Cost?

With the vast majority of members now having their own PCs and Internet having become an integral part of both education and everyday life, the plan is provide the *good***net** service to all rooms as part of the standard room rate. As such, from September 2005 there will be no separate charge for using *good***net** 's data/Internet service or for receiving incoming calls on the phone that is provided in each room. Outgoing calls must be paid for and *good***net** offers very low rates on UK and International destinations and a variety of pre-pay options.

Until September 2005, members can opt in to receive the *good***net** data and PC-TV service for a cost of £12 per month.

Who Runs the Service?

*good***net** is provided by a private company called ForeVision. ForeVision has designed and installed the service, and supports *good***net** by providing a helpdesk, on-site training and system engineers.

Future Developments

The first phase of *good***net** has focused on provision of data, telephone and TV services. We are always investigating the possible provision of additional services, which we will detail should they become available. Feel free to email us at goodnet@goodenough.ac.uk with any suggestions!

2.0 The *good*net Data Service

What is the Data Service Provided by *good*net?

There are two elements to the *good*net data service: Ethernet networking in all member rooms and wireless networking in common areas.

In all member rooms throughout the College, an "always on", high-performance, network connection provides access to the Internet. In technical terms, the data service is based on an Ethernet network architecture with 10/100 Mbps connections to each member room and a 1000 Mbps or Gigabit backbone across the College.

Wireless coverage is also available throughout all common areas at Goodenough College, including the Great Hall, Freddy's, Libraries, Common Rooms, Quads and the gardens. The system is based on the popular WiFi or 802.11b standard, enabling the vast majority of laptop or notebook computers to connect easily and use the service.

Because *good*net is a shared service and one user's behaviour may affect the network performance for other, there is an Acceptable Use Policy for the service which should be read by anyone using the service.

System Requirements

To use the data service provided by *good*net, you will need a desktop or notebook PC running Windows 2000/XP or an Apple Mac running OS/X.

To use the data service in rooms, your computer must be able to connect to an Ethernet network. This is usually achieved in one of three ways:

- PC/Mac has a built-in 10/100 Ethernet or LAN connector
- Adding a 10/100 Ethernet LAN card to a free PCMCIA slot
- Using a USB Ethernet adapter

You will also need an Ethernet or RJ-45 cable (note: this is different to the cable for a dial-up modem).

To use the wireless service in common areas, you will need a laptop or handheld with WiFi 802.11b or 802.11g wireless capability. This is usually achieved in one of three ways:

- Laptop or handheld with wireless adapter
- Adding a wireless card to a free expansion (e.g. PCMCIA) slot
- Using a USB wireless adapter

Please note, PCs with 802.11a wireless cards will not be able to connect to the *good***net** wireless service.

It is possible to use unsupported systems on *good***net**, including older versions of Windows, Apple Macs and Linux PCs, however user support cannot be guaranteed. If a problem cannot be easily resolved then the ultimate action is for the user to upgrade to a supported device and Operating System.

What Applications Are Supported?

The following applications are supported fully by *good***net**:

- Web access (HTML etc.)
- Email (POP3, SMTP, Web-based)
- FTP client (i.e. not FTP hosting)
- Instant Messenger

All other applications are not officially supported and so any assistance is offered only on a 'best-efforts' basis.

Regulations and Misuse

*good***net** is provided as a service to all members living at Goodenough College and the College aims to provide every user with a first-class data and Internet service without overly restrictive rules and regulations. However, users should respect their fellow members and not do anything that would cause the overall network performance and service to deteriorate.

An Acceptable Use Policy for the service is provided as an Appendix to this guide. Members should be aware that anyone using the *good***net** service is deemed to have read, understood and accepted the published Acceptable Use Policy

Attention is also drawn to The Lawful Business Practice Regulations (2000) that allow organisations to monitor communications transmitted over their systems without consent for specific purposes, e.g. ensuring the effective operation of the system and investigating or detecting unauthorised use. Any monitoring that the College may undertake will comply with the Regulations. We do not monitor calls, or your connection to an Internet Service Provider. This document gives the required notice that limited monitoring of service management may take place. Data collection when monitoring *good***net** will comply with the Data Protection Act .

Computer misuse may also be a matter for legal proceedings, and the University will involve the relevant authorities where appropriate.

Security and Protection Issues

On any network, security and protection of both the system itself and users' PCs is important. *good***net** has up to 700 users all connected to the outside world via the Internet, and so security and protection is a top priority. As such, all *good***net** PC and Mac users are required to use up-to-date anti-virus software.

Details of free and paid-for personal anti-virus and firewall software are included in Section 5 of this Manual.

Users with PCs running Windows XP or Windows 2000 should also perform a Windows Update at regular intervals (this can be easily run from the 'Start/All Programs' menu option).

3.0 Connecting to the Data Service in Your Room

Checking Your Computer for an Ethernet Adapter or Card

Most modern computers come with an Ethernet adapter or network card built in. If you are unsure whether or not your computer does have one, look for a socket or jack on the back or side of your computer marked with the following symbol:

or

What to Do If You Don't Have a Built-In Ethernet Card or Adapter

If you do not have a built-in Ethernet card or adapter then you need to buy one.

- If you have a desktop or "tower"-type PC then you will need a Network Interface Card (or "NIC") that you will need to install "inside" your computer.

- If you have a laptop or notebook computer then you will need an Ethernet card in the form of a PCMCIA card which will easily slot into the side of your computer

- Both desktop PC and laptop users can also use a USB Ethernet adapter, which is perhaps the easiest method of adding Ethernet. This simply plugs into a free USB port on your computer and gives you an Ethernet jack to connect an RJ-45 cable to the wall outlet in your room.

For reference, we have also provided the name and manufacturer part number of one popular and low cost model for each of the three options above. If you search with these terms, on a website such as http://www.dabs.com or http://www.insight.com/uk you will easily find these type of products for sale too.

- NIC card for desktop PCs: NETGEAR FA311 Network Adapter. Under £10.
- PCMCIA adapter for laptops: D-Link DFE 690TXD CardBus adapter. Under £25.
- USB Ethernet Adapter for desktops or laptops: Belkin F5D5050 USB Ethernet Adapter. Under £15.

Follow the instructions that come with your new Ethernet device and when you have successfully installed it, continue with your *good***net** set-up.

Cables

Make sure you have an RJ-45 cable (or “Ethernet cable”). This is different from a telephone/modem/RJ-11 cable that you may have used in the past for connecting to the Internet with a built-in dial-up modem. You can easily check the cable you have against the diagrams below:

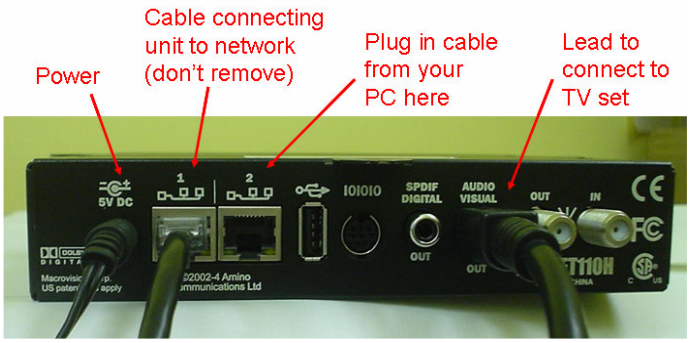
This is an RJ-11 cable. If you look closely you can see it has four pins and wires. This is NOT suitable for connecting to *good***net**.

These are both RJ-45 cables (the one on the left is a “Crimped Plug”, the one on the right a “Moulded Plug”). If you look closely you can see it has eight pins and wires. They are both suitable for connecting to *good***net**.

Plugging In

In single rooms and bedrooms in flats, connect your RJ-45 cable from the Ethernet jack on your computer to the new data socket (marked with your room number).

In the lounges of flats, the data outlet is already used by the Set Top Box installed in the room. To connect a PC in this room to the data service, connect the RJ-45 cable from the Ethernet jack on your computer to the spare data socket (labelled “2”) on the Set Top Box itself:



Connecting to the Network

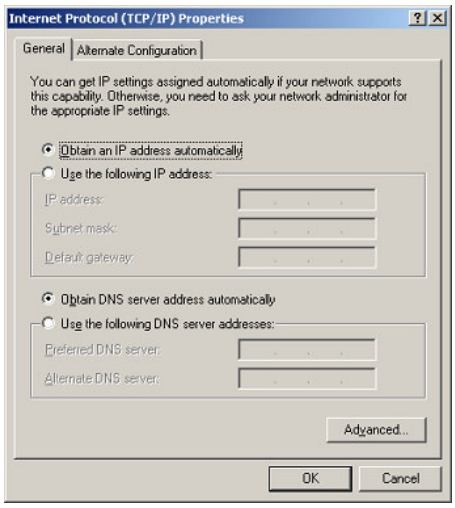
Simply, connect your PC or Mac from its Ethernet/network port to the new data outlet on your wall or to the spare port on your Set Top Box using the correct cable (as described in the section above), then start up your computer.

Most modern computers will be set up to automatically connect to the *good***net** network and so once your PC/Mac has booted, if you open a browser (e.g. Internet Explorer) you should be able to browse the Internet.

If this doesn't work, then you may need to re-set some of your computer's network settings as below:

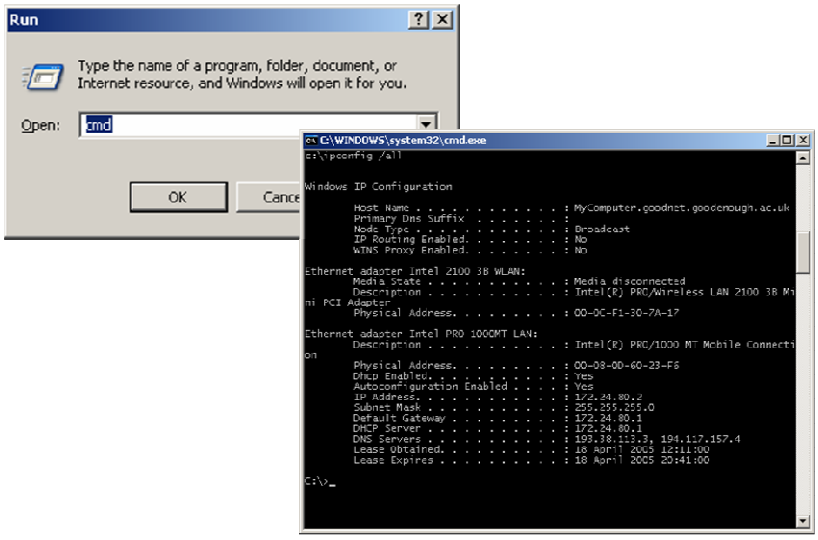
Windows XP Settings

1. Go to the **Control Panel** and double click on the icon for **Network Connections** (if using WinXP) or **Network and dial-up connections** (if using Win2000)
2. Double click on **Local Area Connection** or **Local Area Network**
3. Select **Properties** and ensure **Internet Protocol (TCP/IP)** is ticked
4. Click on **Properties** and ensure that **Obtain an IP address automatically** and **Obtain DNS server address automatically** are both checked (as below):


Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

You should now be able to open a browser and see the Service web pages. If you are still having problems, try the following:

1. Go to **Start** / **Run**, and when the **Run** prompt appears, type **CMD** then press **OK**.
2. In the dos command window that has opened ("old fashioned" black & white box) type **ipconfig/all**

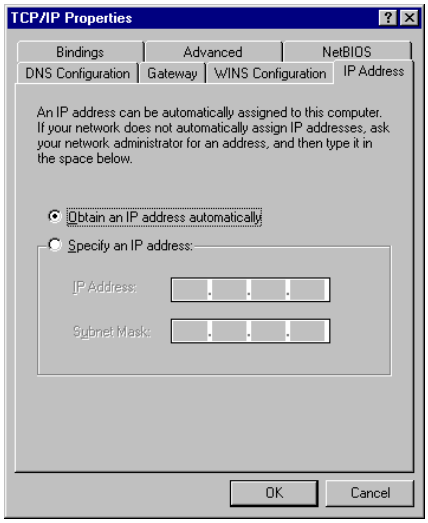

Run
Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:
cmd
OK
C:\WINDOWS\system32\cmd.exe
C:\>ipconfig /all
Windows IP Configuration
Host Name . . . . . : MyComputer.goodnet.goodenough.ac.uk
Primary Dns Suffix . . . . . :
Node Type . . . . . : Broadcast
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
Ethernet adapter Intel 2100 3B WLAN:
Media State . . . . . : Media disconnected
Description . . . . . : Intel(R) PRO/Wireless LAN 2100 3B Mini PCI Adapter
Physical Address. . . . . : 00-0C-F1-30-7A-17
Ethernet adapter Intel PRO 1000MT LAN:
Description . . . . . : Intel(R) PRO/1000 MT Mobile Connection
Physical Address. . . . . : 00-08-0D-60-23-F6
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
IP Address. . . . . : 172.24.80.2
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 172.24.80.1
DHCP Server . . . . . : 172.24.80.1
DNS Servers . . . . . : 193.38.113.3, 194.117.157.4
Lease Obtained. . . . . : 18 April 2005 12:11:00
Lease Expires . . . . . : 18 April 2005 23:41:00
C:\>

3. Check that your **IP Address** starts with **172.24**….
4. Check that the **Default Gateway** starts with **172.24**….
5. If any of these settings are not as they should be, type **ipconfig /release** and then press **Enter**. Then type **ipconfig /renew** and press **Enter**

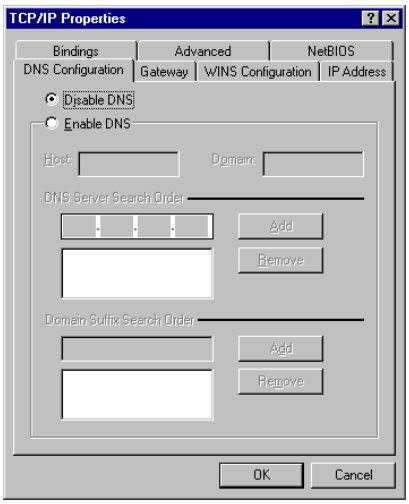
If these settings are still not as they should be, call the *good***net** helpline on 01189 898 391.

Windows 98 Settings

1. Go to the **Control Panel** and double click on the **Network** icon
2. From the list of components locate your network card or adapter, highlight this and click on **Properties**
3. Select the tab for **IP Address** and ensure it is set to **Obtain an IP address automatically** (as below):


TCP/IP Properties
Bindings
Advanced
NetBIOS
DNS Configuration
Gateway
WINS Configuration
IP Address
An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.
Obtain an IP address automatically
Specify an IP address:
IP Address:
Subnet Mask:
OK
Cancel

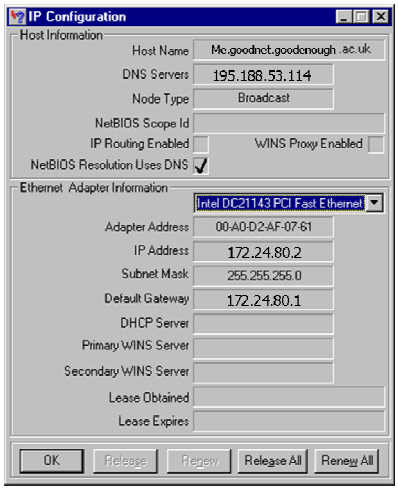
4. Select the tab for **DNS Configuration** and ensure that **Disable DNS** is selected (as below):



5. Press **OK** twice and follow any prompts to re-boot.

You should now be able to open a browser and access the Internet, try the following:

1. Go to **Start > Run**, and when the **Run** prompt appears, type **winipcfg** then press **OK**. You should see the following **IP Configuration** Window:

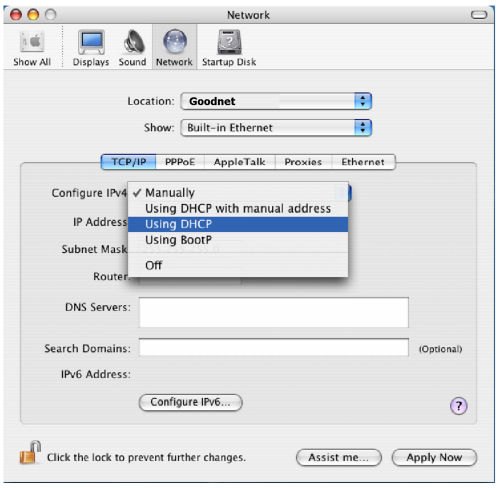


2. Check that your **IP Address** starts with **172.24**….
3. Check that the **Default Gateway** starts with **172.24**…..
4. If any of these settings are not as they should be, press the **Release All** button then press the **Renew All** button

If these settings are still not as they should be, call the *good***net** helpline on 01189 898 391.

Mac OS & OS X Settings

1. Open the **Apple** menu and double click on the **System Preferences** icon
2. From the **Internet & Network** group, double click on the **Network** icon
3. Under the tab for **Show** ensure that it is set to **Built-in Ethernet**
4. Under the tab for **TCP/IP** ensure that it is set to **Configure Using DHCP**



5. Close and save changes

You should now be able to open a browser and access the Internet. If you are still having problems, call the *good***net** helpline on 01189 898 391.

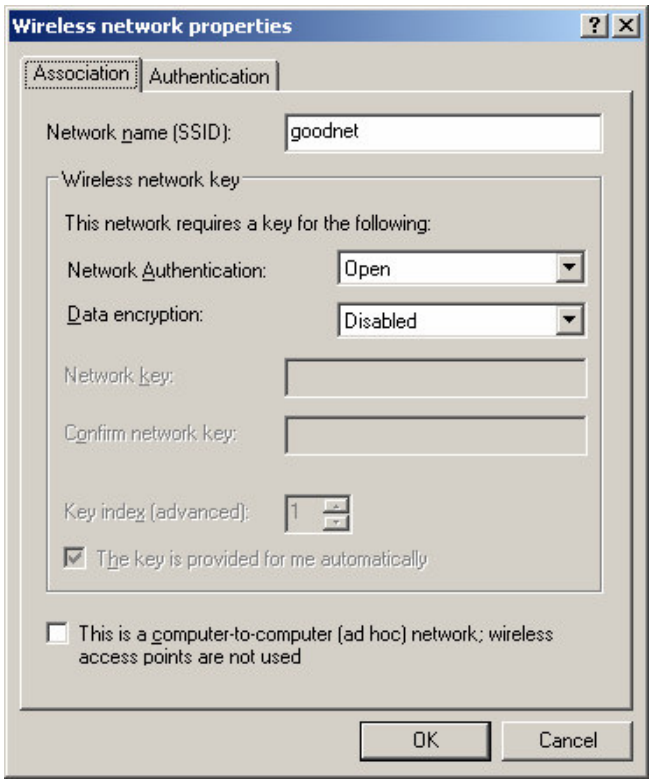
4.0 Wireless Access in Common Areas

Wireless network access is available in all common areas at the College, including the Common Rooms, Libraries, Quads, Mecklenburgh Square Gardens, the Dining Hall and Freddy's Bar.

Configuring your computer to access the *good***net** wireless service is simple. Following are instructions for Windows XP and Mac OS/X.

Windows XP Settings

1. Go to the **Control Panel** and double click on the icon for **Network Connections**
2. Double click on **Wireless Network Connection**
3. In the **Wireless Network Connection** window, click on **Advanced**
4. In the **Wireless Network Connection Properties** window, in the **Prefered networks:** section, click on **Add…**
5. In the **Wireless network properties** window, enter **goodnet** as the **Network name (SSID)**, and ensure **Data encryption** is set as **Disabled** (as below):



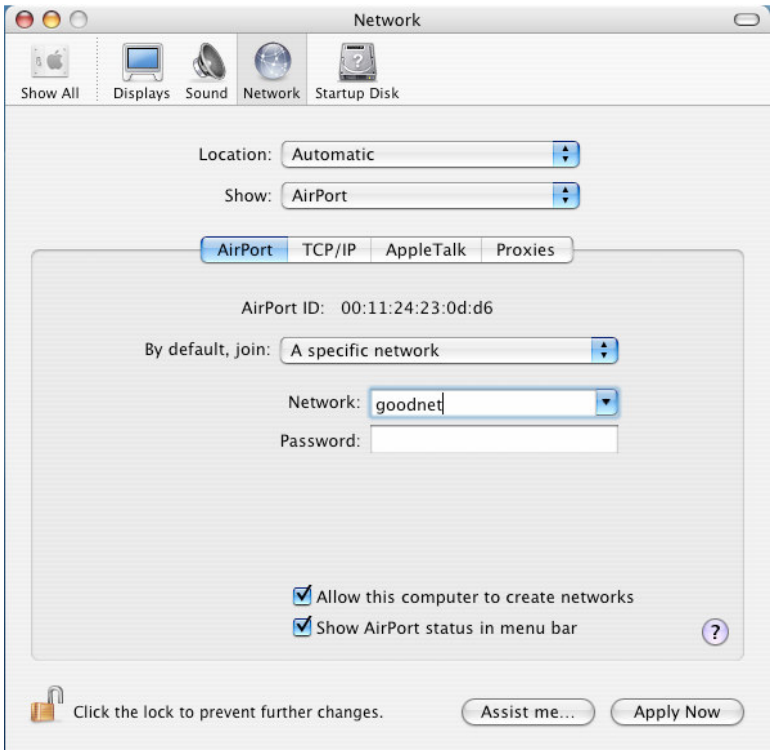
6. Click on **OK** and you computer should automatically connect to the *good***net** wireless service

Windows 98 Settings

Unlike with Window XP and 2000, because wireless was not a popular technology when Windows 98 was released, this version of Windows does not have wireless settings as part of the Operating System. As such, if you are using wireless and are still running Windows 98 on your PC, you will need to follow the instructions for your particular wireless card or adapter. When prompted, the Network Name or SSID is goodnet.

Mac OS/X Settings

1. Open the **Apple** menu and double click on the **System Preferences** icon.
2. From the **Internet & Network** group, double click on the **Network** icon.
3. Under the tab for **Show** ensure that it is set to **AirPort**.
4. Under the tab for **By default, join:** select **A specific network**.
5. Under **Network:** type **goodnet** and leave the **Password:** as blank (as below):



6. Close and save changes

5.0 Protecting Your Computer

On any network, security and protection of both the system itself and users' PCs is important. *good***net** has up to 700 users all connected to the outside world via the Internet, and so security and protection is a top priority. With new viruses and Trojans appearing almost daily, it is important to install AntiVirus software on your computer and to keep this current with regular updates.

All *good***net** users are required to use up to date anti-virus software.

*good***net** uses sophisticated network monitoring and management tools to ensure optimum network performance for users. Infected PCs often have symptoms which can be seen by the network administrator, for example sending out many broadcasts to the network without the user even knowing. Any computer adversely affecting the network in the way will be disconnected from the service.

On its website, Microsoft provides links to a number of reputable companies who offer free anti-virus software on trials for periods of up to one year:

http://www.microsoft.com/athome/security/downloads/default.mspx

We also can strongly recommend AVG AntiVirus, software which is completely free of charge and available from http://free.grisoft.com

Personal Firewalls

All *good***net** users are recommended to install their own firewall protection. Users with PCs running Windows XP or Windows 2000 should also perform a Windows Update at regular intervals (this can be easily run from the "Start/All Programs" menu option).

Windows XP has an Internet Connection Firewall (ICF) built in. It is not available as a stand-alone package, nor is it available for non-XP versions of Windows or other operating systems (e.g., Apple Macintosh or Linux). Stand-alone software firewalls work well with Windows 98, Windows ME, and Windows 2000.

If you are interested in finding out more, there is a wealth of information on the Microsoft website in the Protect Your PC section:

http://www.microsoft.com/athome/security/protect/default.aspx

6.0 Supported Applications

Internet Access

To access web pages simply use your Web browser as you would on any PC connected to the Internet. *good***net** provides an always-on data service so you can leave your PC on with your browser open when you are not actually using it. Browsers supported by the *good***net** helpdesk are as follows:

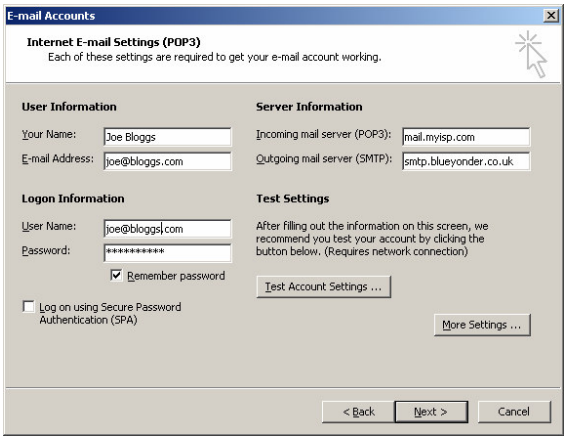
- Microsoft Internet Explorer
- Mozilla Firefox
- Apple Safari

Email

If you already use a personal Web-based mail service such as Hotmail, YahooMail, you can continue to do so as you would from any PC connected to the Internet.

If you prefer to use a POP3/SMTP-based email application, such as Microsoft Outlook, then you may need to make a minor configuration change to your "Email Accounts Settings". Although receiving mail in Outlook via POP3 should work with your original settings from your ISP (or the Goodenough mail server), most ISPs now limit sending mail to their SMTP server to computers physically connected to that ISP's network. If you find you have trouble sending mail, you will need to change the following settings whenever you are connected to the *good***net** service:

1. Open Microsoft Outlook and from the **Tools** dropdown menu select **Email Accounts**
2. Under the **Email** options, select **View or change existing e-mail accounts** and press **Next>**
3. A new Window will open where your current email account is highlighted. Press **Change…**
4. In the box for **Outgoing mail server (SMTP)**, type **smtp.blueyonder.co.uk** (as below):



5. Click the **Next >** button and then on the following Window press the **Finish** button.

Instant Messenger

*good***net** supports the chat component of most popular Instant Messenger applications. Voice, video & file transfer components are possible, but not supported. There are two main types of Instant Messenger clients: Browser-based and Application-based.

Supported clients include:

- MSN Messenger (& WebMessenger)
- Windows Messenger
- Yahoo! Messenger (& WebMessenger)
- AOL AIM (& AIM Express)

Network Storage

Currently you can only access your own storage area on the Goodenough College Server from the PCs within the Computer Rooms in London House and William Goodenough House. We are currently working on a new system which you will be able to access from any PC that is connected to the Internet (e.g. your own PC connected to *good***net**, College PCs in the Computer Rooms, PCs at home or other educational establishments etc.)

7.0 FAQs

- I seem to be able to send emails but I can't send email. What am I doing wrong?
- How do I get a network card or cable if I haven't got one?
- Can I play multi-user games?
- Can I use music download sites, such as iTunes?
- Can I use Peer-to-Peer or file sharing services, such as Kaaza?
- Sometimes I can pick up a wireless signal from my room and then at other times I can't. What's going on?
- I need a fixed IP address to connect to remote machines. What can I do?

I seem to be able to send emails but I can't send email. What am I doing wrong?

Most ISPs now limit sending mail to their SMTP server to computers physically connected to that ISP's network. If you find you have trouble sending mail, you will need to change your Outgoing mail server (SMTP) settings, to smtp.blueyonder.co.uk. If you are unsure of how to do this, please refer to the detailed instructions on Page 16.

How do I get a network card or cable if I haven't got one?

For a limited time, 3 metre RJ-45 cables are available from the London House and William Goodenough House receptions for a cost of £2.

All types of network cards are generally always stocked by any of the computer shops on Tottenham Court Road (about 10 minutes walk from the College) or larger shops such as PC World, Currys, Comet, Dixons etc. For the best pricing, and usually next day delivery, try an online store such as http://www.dabs.com or http://www.insight.com/uk

There are recommended products and price guidance on Page 7.

Can I play multi-user games?

You can play multi-user or network games that are LAN based i.e. with other players who are also connected to *good***net**. You will not be able to play WAN or Internet based campus i.e. with other players who are not using *good***net**. LAN-based network games are not supported applications and can therefore be blocked if they become a problem, so users should be careful not to do anything that would cause the overall network performance and service to deteriorate.

Can I use music download sites, such as iTunes?

Yes.

Can I use Peer-to-Peer or file sharing services, such as Kaaza?

Peer-to-peer services are not supported. Remember that *good***net** is provided for the use of all members and so all users should respect their fellow students and not do anything that would cause the overall network performance and service to deteriorate. *good***net** utilises sophisticated network management and monitoring tools, and specific applications can be limited and also tracked to individual users. The University reserves the right to prohibit access to *good***net** for anyone in violation of the *good***net** Acceptable Use Policy. Members should also be aware of copyright laws and restrictions when sharing music or video files.

Sometimes I can pick up a wireless signal from my room and then at other times I can't. What's going on?

The *good***net** wireless service is provided for members to get Internet access from common areas around the College. Because some members' rooms are close to common areas (e.g. rooms overlooking the Quads, or above conference rooms) they can often pick up the wireless signal. While this is not discouraged, it is not supported. Wireless signal is affected by many factors, especially interference from other access points nearby, and so the signal strength may change from time to time. The system has been configured to provide maximum availability and performance directly from the common areas themselves.

I need a fixed IP address to host a server. What can I do?

IP address (starting 172.24.x.x) for users on *good***net** are provided dynamically as all users are sitting behind a NAT firewall. The firewall is there to protect users' PCs and the video servers on the network. As such, the service is not designed for members to host servers in the rooms.

*good*net Acceptable Use Policy

All College members (*Users*) must comply with the following when they use the Internet, telephone services, video or other services (*Services*) made available to them, by the College through ForeVision Systems Limited:

1. Users must not transmit or provide access to any:
   i. content which is unlawful:
   ii. content that is threatening, abusive, harassing, defamatory, pornographic, obscene, invasive of another's privacy or racially, ethnically or otherwise objectionable; or
   iii. content that harms minors in any way; or
   iv. content that the sender does not have a right to transmit under any law or under contractual or fiduciary relationships (such as insider information, proprietary and confidential information learned or disclosed as part of employment relationships or under any obligations of confidence); or
   v. content which breaches a third party's copyright, design rights, patents, trade marks, moral rights, know-how, confidential information and any other intellectual property rights; or
   vi. content that promotes or provides instructional information about illegal activities or promotes physical harm or injury against any group or individual.

Content includes text, graphics, video, audio likenesses, coding, trademarks, logos, artwork, domain names, image maps, links, software applications, or other content, material and information.

2. Users must not use the Services for commercial purposes. The Service is provided solely for use of College members. Users must not re-sell, or attempt to re-sell the Service (or any part of them) to any third party.

3. Users are responsible for making copies of any valuable data. The College shall not be liable for any loss caused to Users by the corruption or destruction of data.

4. Users are not permitted to attach more than one computer to the data outlet or access point provided for connecting to the Services.

5. Users are responsible for ensuring any computers connected to the Services are properly licensed and used strictly in accordance with any conditions of use pertaining to the software. It is the User's responsibility to ensure compliance with any conditions of use.

6. Each User is responsible for ensuring that their computer to protected against external attack and that it is not used to initiate any attacks against the Services. Users are required to use up-to-date anti virus software.

7. The College may, from time to time, give Users reasonable instructions about the use of the Services. Users must observe the instructions.

8. The College may monitor the use of the Service (and disclose and otherwise use the information so obtained) only to the extent allowed by applicable privacy and other laws and regulations and only to the extent necessary to:
   i. comply with applicable law, regulation or other governmental request or order;
   ii. make sure that Users are not in breach of this Acceptable Use Policy, if the College has reasonable grounds for believing that Users are in breach;
   iii. protect the integrity of the public Internet and/or the College network or systems;
   iv. provide the Services.

9. Users must take reasonable care of any equipment belonging to the College or to ForeVision which is made available to Users so that they can use the Services.